

Title (en)  
ANTENNA DEVICE

Title (de)  
ANTENNENVORRICHTUNG

Title (fr)  
DISPOSITIF D'ANTENNE

Publication  
**EP 3907826 A1 20211110 (EN)**

Application  
**EP 21179743 A 20170616**

Priority  
• JP 2016184956 A 20160922  
• EP 17852635 A 20170616  
• JP 2017022413 W 20170616

Abstract (en)  
An antenna device is provided which can be used over a broad frequency band. The antenna device includes: a broadband antenna 10 based on a bow-tie antenna including a first plate-like metal 20 and a second plate-like metal which extend in opposite directions to each other with respect to a feeding point; and a patch antenna 50 provided on a second portion which is bent substantially at a right angle from a first portion 21 of the first plate-like metal 20 which lies near the feeding point. The second portion performs as a ground plate of the patch antenna 50. A portion including the patch antenna 50 is accommodated in a radome 60.

IPC 8 full level  
**H01Q 21/28** (2006.01); **H01Q 1/32** (2006.01); **H01Q 1/42** (2006.01); **H01Q 1/48** (2006.01); **H01Q 5/40** (2015.01); **H01Q 9/04** (2006.01); **H01Q 9/26** (2006.01); **H01Q 9/28** (2006.01); **H01Q 13/08** (2006.01); **H01Q 25/00** (2006.01)

CPC (source: EP US)  
**H01Q 1/32** (2013.01 - US); **H01Q 1/3233** (2013.01 - EP US); **H01Q 1/48** (2013.01 - EP US); **H01Q 5/40** (2015.01 - EP US); **H01Q 9/04** (2013.01 - US); **H01Q 9/0421** (2013.01 - US); **H01Q 9/0435** (2013.01 - EP US); **H01Q 9/045** (2013.01 - US); **H01Q 9/26** (2013.01 - EP US); **H01Q 9/28** (2013.01 - EP US); **H01Q 9/285** (2013.01 - EP US); **H01Q 13/085** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **H01Q 25/00** (2013.01 - EP US); **H01Q 1/42** (2013.01 - EP US)

Citation (applicant)  
JP 2011193432 A 20110929 - YAZAKI CORP

Citation (search report)  
• [XAI] US 2013214982 A1 20130822 - DEAN STUART JAMES [CA], et al  
• [XI] US 2007200762 A1 20070830 - FRANK ZVI H [IL], et al  
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Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**US 11394108 B2 20220719**; **US 2019190136 A1 20190620**; CN 109155467 A 20190104; CN 109155467 B 20210402; EP 3518344 A1 20190731; EP 3518344 A4 20191225; EP 3518344 B1 20210811; EP 3907826 A1 20211110; JP 2018050207 A 20180329; JP 6461061 B2 20190130; WO 2018055854 A1 20180329

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